Amendments to the Specification:

Please replace the paragraph on page 2, lines 16-22 with the following amended paragraph:

The invention provides an apparatus as set forth in claim 1. By using a T-type attenuator structure, wherein the T-type attenuator structure includes ~~with~~ a diode 104 in the leg of the T and "normally-on" transistors (100,102) in the branches of the T, a switch 10 is realized that is "on" when no power supply voltage is applied. Moreover, this circuit makes it possible to use ~~the~~ an internal node 101 to apply ~~the~~ a control voltage ~~that switches the switch off~~ to both the transistors (100,102) and the diode 104, wherein the control voltage switches the switch 10 "off", as discussed further herein. ~~Separate~~ In addition, with the embodiments of the present disclosure, no separate connections ~~are not needed~~ and no capacitors are needed to isolate the control voltage of the transistors and the diode from one another.

Please replace the paragraph on page 2, lines 23-27 with the following amended paragraph:

In a further embodiment, the control voltage is applied to the internal node 101 via the diode 104. Thus it is possible to generate a large voltage difference between the control electrode (i.e., corresponding to the gate G of each respective transistor 100 and 102) and the channel of the transistors, ensuring a high ratio between the impedance of the transistors in the on and off-states. As a result, the circuit is robust against spread in threshold values of the transistors and subthreshold leakage.

Please replace the paragraph on page 3, lines 2-6 with the following amended paragraph:

Fig. 1 shows an apparatus with a signal switch 10, a control circuit 12, an

antenna input 14 and a processing system 16. The signal switch 10 is connected between the antenna input 14 (at input 18a) and an output 18b of the apparatus. The processing system 16 is also connected to the antenna input 14 (at input 18a) and the output 18b of the apparatus. ~~Then~~ In addition, control circuit 12 is coupled to the signal switch 10. Control circuit 12 is also coupled to the processing system 16, wherein the control circuit 12 ~~and~~ is controlled from the processing system 16.

Please replace the paragraph on page 3, lines 7-21 with the following amended paragraph:

The signal switch 10 contains a first field effect transistor 100, a second field effect transistor 102, a diode 104, a decoupling capacitor 105, a resistor 106 and a pair of capacitors ~~108a,b~~ (108a and 108b). The gate, source, and drain of each transistor 100 and 102 are indicated in FIG. 1 by G, S, and D, respectively. The first and second transistors are of the "normally-on" type (depletion transistors), that is, they have a negative threshold voltage so that the main current channel conducts when the potential difference between the control electrode (gate G of the transistor) and the main current channel is zero. The main current channel becomes isolating (substantially without induced mobile charge carriers) only when the potential of the control electrode (gate G of the transistor) is at a potential more than a threshold below the potential of the main current channel. For example, transistors with a threshold of –3.5 Volts may be used (that is, a relatively large threshold voltage, so that the transistor is solidly on, with a low channel resistance, when the gate-source voltage is zero (i.e., V_{GS} = 0 volts). Such a high threshold voltage is possible because the diode 104 is not connected in parallel with the gate-source of the transistors, as far as DC voltages are concerned). The diode 104 is preferably a silicon "PIN" diode, which has a low junction capacitance when it is reverse-biased. (PIN refers to the doping profile, which has a substantially undoped intrinsic region between the anode and the cathode of the diode.)

Please replace the paragraph on page 3, lines 22-30 with the following amended paragraph:

A signal input 18a of the switch 10 is coupled to a signal output 18b (which forms the output 18b) via, successively, a first one 108a of the capacitors, the main current channel of the first field effect transistor 100, an internal node 101, the main current channel of the second transistor 102 and a second one of the capacitors 108b. The control electrodes of the first and the second field effect transistor 100, 102 are coupled to a common conductor 107. The resistor 106 is coupled between the internal node 101 and this common conductor 107. ~~An~~ A first output 121 of the control circuit 12 is coupled to the common conductor 107 and a second output 122 of the control circuit 12 is coupled to the internal node 101, the latter output 122 being coupled to the internal node 101 via diode 104 in the forward direction. ~~This~~ The second output 122 of the control circuit 12 is also coupled to the common conductor 107 via decoupling capacitor 105.

Please replace the paragraph beginning on page 3, line 31 through page 4, line 13 with the following amended paragraph:

In operation, an RF signal is received by antenna input 14. When processing system 16 is active, ~~it~~ processing system 16 processes the RF signal and produces an output signal that is applied to output 18b. In this case, processing system 16 controls control circuit 12 to make signal switch 10 block ~~this~~ the RF signal. That is, processing system 16 controls control circuit 12 in a manner wherein signal switch 10 is turned "off" and thereby does not allow the RF signal to pass through signal switch 10 from input 18a to output 18b. Control circuit 12 realizes this by applying a positive voltage of, for example, 5 Volts to the anode of diode 104, relative to common conductor 107, and thus forward-biasing the diode 104. This forward-biasing of diode 104 results in application of a positive voltage to internal node 101 relative to the common conductor 107. This positive voltage is equal to the voltage at the anode of the diode 104 minus a

voltage drop across the diode 104, which is approximately 0.7 Volts in the case of a silicon diode, so that the voltage difference between the internal node 101 and the common conductor 107 is, for example, 4.3 Volts. Thus, the voltage of the control electrodes (i.e., the voltage applied to the respective gates G) of the first and second transistors 100, 102 is substantially below that of the main current channels of the first and second transistors 100, 102, thereby causing conduction through the main current channels of these transistors to be cut off. At the same time, the diode 104 is forward-biased, causing ~~it~~ the diode 104 to have a low dynamic resistance, which is coupled to the common conductor 107 via decoupling capacitor 105. As a result, an "off" state of the signal switch 10 is realized in which the main current channels of transistors 100, 102 and diode 104 form a T-type attenuator between input 18a and output 18b with a large attenuation factor.

Please replace the paragraph on page 4, lines 14-29 with the following amended paragraph:

When processing system 16 is not active, control circuit 12 commands signal switch 10 to pass the RF signal from its input 18a to its output 18b. In other words, when processing system 16 is not active, processing system 16 does not process the RF signal, nor does it produce an output signal that is applied to output 18b. Instead, when processing system 16 is not active, control circuit 12 is configured for enabling signal switch 10 to be turned "on " and thereby allow the RF signal to pass through signal switch 10 from input 18a to output 18b. This is realized with a zero-voltage difference between the anode of diode 104 and the common conductor 107. In other words, control circuit 12 is configured for enabling a DC voltage at the anode of the diode 104 to be the same as a DC voltage at the common conductor 107, wherein the difference in voltage between the anode of the diode 104 and the common conductor 107 is zero volts. ~~As a result,~~ Furthermore, there is no DC voltage difference between the anode and cathode of the diode 104, nor between the control electrode (gate G of

the transistor) and the main current channel of the transistors 100, 102. Recall that transistors 100 and 102 are "normally-on" transistors, which means that each transistor is conductive when no voltage difference is present between the transistor's gate (G) and source (S). ~~Diode~~ With respect to no DC voltage difference between the anode and cathode of the diode 104, diode 104 is not forward-biased and therefore has a high dynamic resistance. As indicated above, the control circuit 12 enables a voltage at the anode of the diode 104 to be the same as a voltage at the common conductor 107, and so, during the switch "on" state, no DC voltage difference is present between the anode and cathode. At the same time, the main current channels of the transistors 100, 102 are conductive. Thus, an "on" state (also referred to herein as "on-state") of the signal switch 10 is realized, wherein signal switch 10 provides ~~with~~ a signal passage with low attenuation between the input 18a and the output 18b. ~~It will be~~ As understood from the discussion above, it should be noted that this "on" state of the signal switch 10 does not require any voltage difference (other than a zero-voltage difference as provided in response to the outputs of the control circuit 12 in connection with the diode 104 and the common conductor 107) to be applied to the signal switch 10 for the signal switch 10 to be in the on-state. ~~The~~ Accordingly, the on-state can be realized without a need for a voltage difference that can be provided from [[a]] an additional supply voltage source. ~~Of course~~ In another embodiment, the on-state of signal switch 10 may also be realized ~~when~~ in response to a supply voltage difference, wherein the supply voltage difference comprises an effective ~~is present, by applying a~~ zero-voltage difference between the anode of diode 104 and common conductor 107 ~~(or more generally~~ (wherein, for this embodiment, the effective zero-voltage difference corresponds to a voltage difference that is smaller than the voltage needed for forward-biasing diode 104), ~~on~~ further in responsive to a command from processing system 16, when ~~it~~ signal switch 10 is needed to pass ~~the~~ an input RF signal from the input 18a to the output 18b.